

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Markus P.J. Fromherz et al.

Title: COMPLEXITY-DIRECTED COOPERATIVE PROBLEM SOLVING

Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

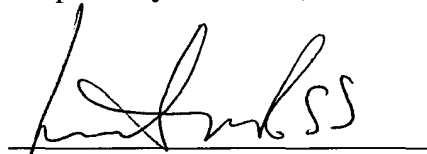
Sir:

Enclosed is a copy of the Information Disclosure Statement Form PTO-1449 submitted pursuant to 37 C.F.R. §1.56, together with copies of the documents cited in that form. The undersigned respectfully requests that the Examiner consider the cited documents and that the enclosed copy of the Information Disclosure Statement Form PTO-1449 be initialed by the Examiner to indicate such consideration and that a copy thereof be returned to the applicants.

This Statement is being filed concurrently with the filing of the application to which it relates. No certification or fee is required.

This Statement is not intended to constitute an admission that any information referred to herein is "prior art" in relation to the claimed invention unless specifically designated as such. In accordance with 37 C.F.R. §1.97(g) and (h), the filing of this Statement shall not be construed to mean that a search has been made or that the information submitted herewith is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Linda M. Robb', is written over a horizontal line.

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El Segundo, California  
Date: June 24, 2003

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|---|---|--|---------------------------------|
| Form PTO-1449   | US Dept. of Commerce<br>PATENT & TRADEMARK OFFICE | ATTY DOCKET NO.<br>D/A3180             | APPLICATION NO.<br>Not Assigned |
| INFORMATION DISCLOSURE STATEMENT<br>(Use several sheets if necessary) |   | APPLICANT Markus P.J. Fromherz, et al. |                                 |
|   |   | FILING DATE Herewith                   | GROUP ART UNIT Not Assigned     |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL | DOCUMENT NUMBER  | PUBLICATION<br>DATE | NAME OF PATENTEE              | CLASS | SUB<br>CLASS |
|---------------------|--|---------------------|-------------------------------|-------|--------------|
|                     | 5,870,731  | 07/09/1999          | Ioan Trif, et al.             | 706   | 52           |
|                     | 6,088,690  | 07/11/2000          | Alexander G. Bounares, et al. | 706   | 13           |
|                     | 6,144,923  | 11/07/2000          | Gilbert Grosse                | 702   | 56           |
|                     | Application No. 09/874,167<br>Xerox Docket No. D/A1215 | Filed<br>06/04/2001 | Markus P.J. Fromherz, et al.  |       |              |
|                     | Application No. 09/874,552<br>Xerox Docket No. D/A1214 | Filed<br>06/04/2001 | Warren B. Jackson, et al.     |       |              |
|                     |  |                     |                               |       |              |
|                     |  |                     |                               |       |              |
|                     |  |                     |                               |       |              |
|                     |  |                     |                               |       |              |

## FOREIGN PATENT DOCUMENTS

|  | COUNTRY | DOCUMENT NUMBER | PUBLICATION<br>DATE | NAME OF PATENTEE OR APPLICANT | TRANSLATION<br>Y/N |
|--|---------|-----------------|---------------------|-------------------------------|--------------------|
|  |         |                 |                     |                               |                    |
|  |         |                 |                     |                               |                    |
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|  |         |                 |                     |                               |                    |

## OTHER DOCUMENTS (Including Author (in CAPS), Title, Publication Date, Pages, etc.)

|  |  |
|--|--|
|  | M.J.P. FROMHERZ, T. HOGG, W.B. JACKSON, Y. SHANG, Modular Robot Control and Continuous Cosntraint Satisfaction, Proc. IJCAI-01 Workshop on Modeling and Solving Problems with Constraints, Seattle, WA, 2001, p. 47-56                     |
|  | B. KITTS, Regulation of Complex Systems, Proc. 1 <sup>st</sup> Int'l Conf. On Complex Systems, September 1997  |
|  | O.C. MARTIN, Combining Simulated Annealing with Local Search Heuristics, G. Laporte and I. Osman, editors, Metaheuristics in Combinatorial Optimization, p. 57-75, Annuals of Operations Research Vol. 63, 1996                            |
|  | M.J. MURPHY, E.L. BAKER, Global Local Optimizer, <a href="http://www.llnl.gov/glo/09glo.html">http://www.llnl.gov/glo/09glo.html</a> , LLNL unclassified code #960007, Lawrence Livermore National Laboratory, Livermore CA, November 1995 |
|  | Y. SHANG, M.P.J. FROMHERZ, T. HOGG, W.B. JACKSON, Complexity of Continuous, 3-SAT-like Constraint Satisfaction Problems, Proc. IJCAI-01 Workshop on Stochastic Search Algorithms, Seattle, WAS, 2001, p 49-54                              |

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|---|-----------------|
| EXAMINER  | DATE CONSIDERED |
| Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |